**ATTACHMENT B**

*This attachment describes how to determine the number of collocated monitors required by 40 CFR 58 Appendix A, Section 3 for $PM_{2.5}$, $PM_{10}$, and Pb networks at the Primary Quality Assurance Organization (PQAO) level. The included sample tables can be incorporated into the annual monitoring network plan to display how an agency is assessing and meeting these collocation requirements. Monitors satisfying the collocation requirements should also be identified as a "QA collocated" monitor type in the detailed site information section of an Agency's Annual Network Plan (see Attachment C of this memo for a template which includes this information).*

Template for documenting collocation of manual $PM_{2.5}$, $PM_{10}$, and non-NCore Pb networks:

| Method Code | # Primary Monitors | # Required Collocated Monitors | # Active Collocated Monitors |
|---|---|---|---|
| | | | |
| | | | |

Template for documenting collocation of automated (i.e. continuous) $PM_{2.5}$ network:

| Method Code | # Primary Monitors | # Required Collocated Monitors | # Active Collocated FRM Monitors | # Active Collocated FEM Monitors (same method designation as primary) |
|---|---|---|---|---|
| | | | | |
| | | | | |

Summary of $PM_{2.5}$ Collocation as described in 40 CFR 58 Appendix A, Sections 3.2.5 & 3.3.5

- Since the collocation requirements apply to primary monitoring networks and on a method basis, it is helpful to make a list of all $PM_{2.5}$ primary monitors grouped by method designation, specifically, by each FRM and FEM. For example, a method code of 145 would be assigned to an R & P Model 2025 PM-2.5 Sequential Air Sampler with a Very Sharp Cut Cyclone (VSCC) inlet (for all codes available, see Method Codes section from Attachment D).
- For **each FRM** designated (considering primary monitors only):
  - Collocate at 15 percent of monitors (values of 0.5 or greater round up).
  - Must have at least one collocated monitor per PQAO.
  - Collocated monitor must be same FRM method designation as the primary monitor.
- For **each FEM** designated (considering primary monitors only):
  - Collocate at 15 percent of monitors (values of 0.5 or greater round up) or at least one collocated monitor.
  - The first collocated monitor must be an FRM.
  - Half of collocated monitors must be FRMs, and half must be the same FEM method as the primary monitor.
  - If an odd number of collocated monitors are required, the additional monitor must be a FRM.
- Collocated FRM samplers are required to run on at least a 12-day sampling frequency.
- 80 percent of the collocated samplers should be located at sites that have DVs within ± 20 percent of either the annual or 24-hour $PM_{2.5}$ NAAQS.
- If an agency has no sites within ± 20 percent of either the annual or 24-hour $PM_{2.5}$ NAAQS, 60 percent of the collocated monitors should be located at sites with annual mean concentrations among the 25 percent highest in the network.
- $PM_{2.5}$ samplers used in the $PM_{10-2.5}$ network may be counted to fulfill collocation requirements as long as the samplers are of the same method designation.
- In addition to the requirements in 40 CFR 58 Appendix A, Section 3.2.5, 40 CFR 58 Appendix D, Section 4.7.2 also requires at least one of the continuous $PM_{2.5}$ monitors in each MSA must be collocated with a required FRM/FEM/ARM. If one of the required FRM/FEM/ARM monitor is a continuous FEM or ARM, the collocation requirement in 40 CFR 58 Appendix D, Section 4.7.2 does not apply.

Summary of $PM_{10}$ Collocation as described in 40 CFR 58 Appendix A, Section 3.3.1

- Only manual $PM_{10}$ samplers are required to meet a collocation requirement.
- Each manual method designation (see Method Codes section from Attachment D) in the PQAO must have 15 percent of monitors collocated. Collocation for TSP and $PM_{10}$ samplers must be considered separately.
- Each PQAO with a $PM_{10}$ network must have at least one collocated $PM_{10}$ monitor.
- Collocated samplers are required to run on at least a 12-day schedule.
- Collocated sites must be within the highest 25 percent annual mean concentrations, unless alternatives are approved by the Regional Administrator.
- $PM_{10}$ samplers used in the $PM_{10-2.5}$ network may be counted to fulfill collocation requirements as long as the samplers are of the same method designation.

Summary of Pb Collocation as described in 40 CFR 58 Appendix A, Section 3.3.4.3

- PQAOs with only non-source-oriented NCore Pb sites do not have PQAO minimum collocation requirements. EPA is responsible for coordinating the national collocation requirements that do exist for this network and are established based on 40 CFR Appendix A, Section 3.2.6. Should EPA coordinate with a PQAO to assist with national Pb network collocation, then the collocated monitor must be of the same method designation as the primary monitor.
- All other PQAOs must implement collocation requirements for Pb following $PM_{10}$ collocation described above (and in 40 CFR 58 Appendix A, Section 3.3.1) with the exception that the first collocated Pb site selected must be the site measuring the highest Pb concentrations in the network.